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## Vulnerability factors in the explanation of workplace aggression

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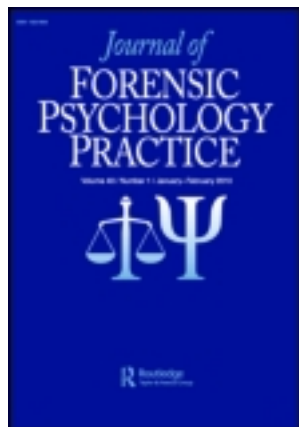
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### Vulnerability Factors in the Explanation of Workplace Aggression: The Construction of a Theoretical Framework

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## AREA REVIEW

# Vulnerability Factors in the Explanation of Workplace Aggression: The Construction of a Theoretical Framework

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*Although workplace aggression is a well-known problem, research on workplace aggression merely focuses on perpetrators' typologies, and workplace-related victim research remains under-represented. In this article, we theoretically explore possible associations between victims' coping strategies, type-D personality, negative childhood experiences, attention-deficit/hyperactivity disorder, and posttraumatic stress disorder and work-related victimization. Through an intensive literature study and the incorporation of existing theories, under which is the precipitation theory, we develop a theoretical framework of vulnerability factors for experiencing workplace violence. Future directions of this theoretical framework and practical implications of the results after empirically exploring the theoretical pathways are suggested.*

**KEYWORDS** *workplace aggression, coping strategies, type-D, childhood experiences, ADHD, PTSD, theoretical framework*

## WORKPLACE AGGRESSION

In the past decades, workplace aggression has become a well-known problem in Western societies. Most of the research on this phenomenon is conducted among health care workers, social workers, and police officers (Anderson & Parish, 2003; Baron & Neuman, 1996; Bogaerts, Hartogh, &

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Knaap, 2008; Brockmann, 2002; Kessler, Spector, Chang, & Parr, 2008; Kunst, Bogaerts, & Winkel, 2009; Leadbetter, 1993; Levin, Beauchamp Hewitt, & Misner, 1998; Littlechild, 2005; Macdonald & Sirotich, 2005; Waddington, Badger, & Bull, 2005).

The type of workplace aggression can vary per occupational niche. Flannery (1996) discusses four types of occupation: workers in corporations and the industrial sector; police and corrections; schools and colleges; and health care settings. These four groups are confronted with several types of violence and aggression. Physical and non-physical assault is applicable to all four occupational groups. Besides assault, workers in corporations and the industrial sector are confronted with man-made disasters, robbery, and homicide; police officers are confronted with homicide and exposure to danger; teachers and school assistants are confronted with homicide, battery, kidnapping, and destruction of property; and health care workers are confronted with witnessing violence. Homicide is a more common form of aggression to be confronted by workers in corporations and industrial settings than by workers in other sectors. Most of these homicides were conducted by dissatisfied customers. A striking prevalence of homicide for females in this sector were merely committed by angry or dissatisfied spouses, who did not agree on their female partner to have a full-time job or felt threatened in their self-esteem (Yang & Lester, 1988).

### Definitions of Workplace Aggression

Some definitions of violent acts strictly focus on physical violence; others take the perception of the victim in defining whether the act displayed on them was an act of violence. Sometimes severe abuse or threat is included in the definition, if this abuse or threat is or was likely to turn into an act of actual physical violence (Leadbetter, 1993). Hegney, Eley, Plank, Buikstra, and Parker (2006) define *workplace harassment* as

Repeated behavior, other than behavior that is sexual harassment, that is directed at an individual worker or group of workers; and is offensive, intimidating, humiliating or threatening; and is unwelcome and unsolicited; and a reasonable person would consider to be offensive, intimidating, humiliating or threatening for the individual worker or group of workers (p. 221).

They stress the importance of *repeated behavior*; the harassment is “*not a single incident*” (p. 221). This definition includes hands-on (physical) as well as hands-off (non-physical) violence. Noak et al. (2002), in line with Gelles and Straus (1979) and Steinmetz (1986), define *violence* as an act carried out with the intention or perception of having the intention of physically hurting another person. In contrast to Hegney et al., Noak et al. specifically

use intentional behavior in their definition of workplace violence. In their study, Dupré and Barling (2006) use the concept of *workplace aggression*, which they define as “Any behavior intended to harm an individual within an organization or an organization itself” (p. 13), following Baron and Neuman (1996) and Neuman and Baron (1998). Also in this definition, intentional behavior is expressed. In their study on violence toward social workers, Macdonald and Sirotych (2005) use a definition of *client violence*, meaning “Any incident in which a social worker is harassed, threatened, or physically assaulted by a client during the worker’s performance of his/her job.” This broad definition is not restricted to hands-on or hands-off violence and does not define whether the act has to be intentional. Aquino and Bradfield (2000) use the term *aggressive action*, following Buss (1961) and define this as interpersonal behavior that inflicts harm, injury, or discomfort upon the target of the act. This definition, like the definition of client violence used by MacDonald and Sirotych, does not define hands-on or hands-off violence and does not refer to intentional behavior. Finally, to mention the definition by the Department of Health, following the European Commission, they state that an act of violence in the workplace includes “Incidents where persons are abused, threatened or assaulted in circumstances relating to their work, involving an explicit or implicit challenge to their safety, well-being or health” (Littlechild, 2005, p. 391), also neither distinguishing hands-on or hands-off violence nor defining intentional behavior as a restriction.

Obviously, a broad range of behavior is ranged under the umbrella terms *violence* or *aggression*, and numerous definitions are formulated. Workplace aggression and workplace violence are sometimes used as synonyms but, according to Barling, Dupré, and Kelloway (2009), a clear distinction can be made between the two in a sense that workplace violence is a specific form of workplace aggression, because the first has the intention to *physically* harm someone. They state that all violent behavior is aggressive but not all aggressive behavior is violent. *Workplace aggression* according to Barling et al. (2009) thus contains physical assault (violence), threats to assault, and psychological aggression. Also in contrast to several studies mentioned earlier, Waddington et al. (2005) make a classification of various forms of violence by distinguishing violence from aggression. Via in-depth cognitive interviews, employees were asked to talk about their experiences with workplace violence and aggression. A wide range of violence and aggression was mentioned by the interviewees. Overt physical violence, fortunately only experienced by a few interviewees, consisted of hitting, kicking, head-butting, physical struggle (at times of arrest), throwing objects, standing in the “line of fire” in a fight between two others, and physical obstruction. Violence directed to the victims’ body and to (the victims’) property falls under the denominator physical violence. Verbal aggression and threats, intimidation, and threats of the self were classified as non-physical aggression. Waddington et al. also take the threatening violent

*context* into consideration. Herewith, they mention background hostility of the encounter, being isolated and the lack of an escape route, organizational context (e.g., the environment or the job description forbids certain actions), and the structural harm of social conditions (e.g., availability of alcohol and drugs or weapons). Neuman and Baron (1998) also distinguish workplace violence from workplace aggression by using the terms *violence* and *aggression* as respectively “Extreme acts of aggression involving direct physical assault” and “Efforts by individuals to harm others with whom they work or have worked.” From the fact that the latter does not explicitly mention non-physical acts, we assume aggression to Neuman and Baron includes physical and non-physical acts following Barling et al., (2009). Baron and Neuman (1996) focus in their study on violence between coworkers and suggest that workplace aggression is a more appropriate term to use when talking about workplace violence, because most of the workplace violent acts concern acts without actual physical harm. Kennedy, Homant, and Homant (2004) also prefer to use the term *aggression* instead of *violence*, namely because aggression is the broader concept. It includes violence and all verbal and indirect forms of violent behavior that intend to harm people.

In our study, workplace aggression is defined as *intentional or impulsive behavior by inmates, other than sexually intended, that may physically or psychologically hurt or damage the penitentiary worker*. In this article, a theoretical framework of vulnerability factors that explain workplace aggression is composed, according to an intensive literature study of these factors (personality characteristics) and previous theoretical insights. Furthermore, we suggest some future directions and go into the practical implications of this framework. Finally, we also reveal some parts of the intended steps to take in our study on vulnerability factors for experiencing workplace aggression.

## Types of Workplace Aggression

Many studies on workplace aggression focus on aggression of workers toward coworkers (e.g. Barling et al., 2009; Dupré & Barling, 2006; Kennedy et al., 2004; Kessler et al., 2008; Neuman & Baron, 1998). Dissatisfied coworkers can come to harm their colleagues because of a loss of self-esteem, being fired, or being repetitively harassed or assaulted by their supervisors (Flannery, 1996). Another large body of research in the field of workplace aggression focuses on client's aggression toward (social) workers/employees. Clients who are frustrated for not receiving the right services or for disagreeing with the decisions made by the social services can act in an aggressive way toward their (social) workers. In the case of health care workers, standing in “the line of fire” or dealing with frustrated/rebellious patients can be a risk of being confronted with patients' aggression.

To distinguish the various kinds of interpersonal workplace related aggression, Merchant and Lundell (2001) developed four categories of workplace violence. Type I involves an act with criminal intention: The perpetrator has no official connection to the workplace, for example, a robbery at a gas station. Type II consists of an aggressive situation of a customer or a client toward an employee, for example, inmate aggression toward a penitentiary worker. Type III involves an aggressive act of a worker versus a co-worker. Finally, Type IV involves a personal relationship problem that is brought into the workplace.

As can be deduced from our definition of workplace aggression formulated in the previous subsection, this article focuses on Type II workplace-related aggression—specifically on aggression of inmates toward penitentiary workers. As social workers, child care workers, workers in the emergency department of a hospital, security guards, and police officers, penitentiary workers are more at risk of workplace aggression Type II than other workers in, for example, the technology sector.

### Vulnerability Factors of Workplace Aggression in Prison Context

According to Aquino and Bradfield (2000), there are three primary sources of victimization: the perpetrator characteristics, environmental factors, and victim characteristics. In this section we discuss these three factors and the way they can contribute to an aggressive context in the workplace of penitentiary workers. First, we discuss victim characteristics (those will be elaborated more in the next subsection) followed by perpetrator characteristics and, finally, context characteristics are discussed.

#### VICTIM CHARACTERISTICS

Earlier research in different kinds of violent or aggressive settings has shown a consistent profile of a typical victim. Victims tend to be more anxious, insecure, more cautious, sensitive, quiet, and socially withdrawn than non-victims. They also tend to have a lower self-esteem and tend to be physically weaker than non-victims (Aquino & Bradfield, 2000). Christie (1986) even refers to an *ideal victim* who is weaker than the perpetrator, involved in legitimate matters, has no responsibility for the crime committed and does not know nor is relationally involved with the perpetrator.

According to Aquino and Bradfield (2000), “Victims (do) either knowingly or unknowingly participate in the sequence of events that lead to their becoming a target of others’ aggressive actions” (p. 526). A few decades earlier, Wolfgang and Singer (1978) described *victim proneness* as “The assumption that certain bio-psycho-social personality traits may converge in some individuals, to propel them toward criminal situations and persons



in such way as to result in higher than average probabilities of being victimized" (p. 389). The principle that victims differ from non-victims was demonstrated by Rowett (1986, in Leadbetter, 1993), when non-victimized respondents reported their victimized colleagues as being more provocative, incompetent, authoritarian, and inexperienced. These examples can be inducted into the *victim precipitation theory* (Aquino & Bradfield, 2000) which states that all victims participate somehow in their own victimization by presenting themselves (willingly or unwillingly) in a certain manner. The victim precipitation theory must be seen free from victim blaming. The theory is not meant to attribute the victimization to the victim in a sense that the victim is the one guilty of deliberately provoking the victimization. The opposite is true; the theory states that, for example, by being more introverted, anxious, unhappy, or insecure, a person can make him- or herself (unwillingly) more vulnerable to victimization. Other victims, conversely, may act hostile or display threatening behavior that causes a violent act by the encounter. This, again, does not mean that the victim deliberately provoked the other to act in a violent or aggressive way.

Specific factors we would like to address in this study, according to victim characteristic that can be seen as vulnerability factors for workplace aggression in penitentiary workers, are maladapted coping strategies, type-D personality, negative childhood experiences, attention-deficit/hyperactivity disorder (ADHD), and posttraumatic stress disorder (PTSD). These factors are elaborated more in the next section.

#### PERPETRATOR CHARACTERISTICS

When studying workplace aggression, most researchers depart from a perpetrators criminological perspective (for example, mentioned in Aquino & Bradfield, 2000; Aquino, Grover, Bradfield, & Allen, 1999; Barling et al., 2009). Unsatisfied employees can become aggressive toward colleagues and managers (superiors; Kessler et al., 2008) after, for example, a perception of injustice (Kennedy et al., 2004). Dupré and Barling (2006) specifically mentioned the perception of interpersonal injustice and add the perception of supervisors' control ("those who perceive themselves as having the least power, may be the most aggressive") and the feeling of being over-controlled (not getting enough freedom or responsibility in tasks) to the trigger factors for acting in an aggressive way. In the case of prison inmates, these characteristics can be well understood. Prisoners may very well have the feeling of being over-controlled: They are being watched, and their freedom is taken away from them. Instead of having the opportunity to walk away from a situation, they are tied to the situation, and this can cause frustration and aggressiveness. In some situations, they may not see another way of expressing their dissatisfaction other than to turn against their guards/caretakers. Also, interpersonal injustice can be experienced by



prison inmates; their perception of the degree to which they are treated with a lack of respect, dignity, and sensitivity by the guards can give them a feeling of being treated unfairly or unjustly. This may cause a situation of aggressive tension that can lead to overt (verbal or physical) aggression. Neuman and Baron (1998) also mention the perception of an unfair treatment and frustration-inducing events as perpetrator aspects for workplace violence.

#### CONTEXT CHARACTERISTICS

Another scope in the field of workplace aggression points at the workplace context (for example, mentioned in Aquino & Bradfield, 2000; Aquino et al., 1999; Kennedy et al., 2004; Wolfgang & Singer, 1978). Specific features of the workplace setting are known as risk factors, such as poor lighting, low security, amount of hours worked, and poor staffing (Anderson & Parish, 2003). In these settings, there is interaction between several environmental factors that can tense the atmosphere and make it prone to violence and aggression. In a prison, inmates are locked up for most of the time and are dependent on penitentiary workers. This “unnatural” situation can cause frustration within the inmates. Also the appearance of a prison, with its hallways, cell-doors, keys, the possibility of being watched in your own cell through a looking glass, and the defined schedule can be intimidating and frustrating and, therefore, cause aggressive behavior in certain situations.

Kessler et al. (2008) describe the safety and violence climate in workplace context. A safety climate is perceived by the workers when there are safety measures and policies and when supervisors monitor these measures and policies and motivate personnel to live up to these policies. In a prison setting, this accounts for personnel and for inmates. If supervisors or team managers keep an eye on personnel and inmates to live up to the rules and safety measures, the prison climate can be perceived as a safety climate. Perceiving a safety climate is linked to important safety outcomes (Kessler et al., 2008), like measures taken for those who do not live up to the safety policy (inmates and penitentiary workers).

The three characteristics mentioned do not stand on their own in being able to cause a situation of tension and frustration; there is interaction between context, victim, and perpetrator characteristics. For example, in a prison where the perceived safety climate is low, the guard is presenting him- or herself in a hostile way and an inmate perceives interpersonal injustice, the chances of a situation to escalate into an aggressive situation are adding up. In this article, we do not go into this interaction of characteristics. As noted, in constructing a theoretical model of vulnerability factors of workplace aggression, this article focuses only on victim personality characteristics.

## Victim Vulnerability Factors for Workplace Aggression among Penitentiary Workers

In this subsection, we first outline the different vulnerability factors victims can carry along, which can have an impact on experiencing workplace aggression in a prison context: (maladapted) coping strategies; type-D personality; negative childhood experiences; ADHD; and PTSD. Second, we incorporate these victim vulnerability factors into the workplace aggression context and analyze the mechanisms that work in explaining the theoretical correlation between the victim vulnerability factor and workplace aggression in prisons. In doing so, we theorize correlations/interactions between the different victim vulnerability factors and their effect on workplace aggression. Finally, we draw a conceptual model in which the paths between the variables are elaborated and hypotheses are formulated.

### (MALADAPTED) COPING STRATEGIES

In the 1980s, a lot of research was done on how individuals cope with stress. Stress itself appears to be of less relevant importance to well-being than the way the individual is coping with a stressful event (Aldwin & Revenson, 1987). A well-known definition of coping strategies by Lazarus and colleagues is used in many research. Lazarus and Folkman (1984) review coping as a response to perceived stress and define it as “Constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resource of the person” (p. 141).

In general, two types of coping can be distinguished: problem-focused or behavioral coping and emotion-focused or cognitive coping (Aldwin & Revenson, 1987; Brauwn-Lewensohn et al., 2009; Carver, Scheier, & Weintraub, 1989; Patterson & McCubbin, 1987; Proulx, Koverola, Fedorowicz, & Kral, 1995; Valentiner, Foa, Riggs, & Gershuny, 1996). The function of coping described by Patterson and McCubbin is “To protect the individual from negative physical or psychological consequences” (p. 168).

Most coping models assume that by using an effective coping strategy, an individual experiences lower levels of distress, anxiety, and depression than by using a non-productive coping strategy (Brauwn-Lewensohn et al., 2009). Although there is no clear consensus about the effectiveness of coping strategies and how well a coping strategy is able to prevent future stress situations, research has shown that emotion-focused coping strategies (such as escapism, self-blame, seeking meaning, and wishful thinking) are associated with a higher level of emotional distress and psychological disturbance than problem-focused coping strategies (such as instrumental action, exercised caution, and negotiation; Aldwin & Revenson, 1987; Lim, Bogossian, & Ahern, 2010; Proulx et al., 1995; Valentiner et al., 1996). Regardless of

whether a coping strategy is successful in diminishing emotional distress, the perceived effectiveness of the strategy used appears to be an important factor in the relationship between the coping strategy and its perceived effectiveness by the individual (Aldwin & Revenson, 1987).

Most general coping strategies are developed in the individuals teenage years (youth and adolescence; Patterson & McCubbin, 1987). The way adolescents develop coping strategies has long-term effects on their lives. Coping strategies are not easy to change once they are established. For developing coping strategies, individuals can draw from (a) previous experiences in similar situations, (b) success stories of others, (c) perceptions of the physiology of the self and assessment of one's own vulnerability, and (d) social persuasion of people in their social network (Patterson & McCubbin, 1987).

Coping strategies that function to deal with stressful situations are mostly developed after experiencing a situation of extreme stress (for example, experiencing a violent crime). Coping with a stressful situation in a non-productive way (e.g., emotion-focused coping) may lack the factor of learning for a future situation of stress. For example, a victim of rape who tries to deal with the aftermath and tries to find meaning for the victimization in an emotion-focused way may not be strategically prepared for recognizing a future situation of threat (for example, in the prison setting) and may, therefore, not be able to tackle the potentially harmful situation before escalation. Problem-focused coping strategies, by contrast, are aimed at problem solving or doing something to alter the source of the stress (Carver et al., 1989). In doing so, an evaluation of the stressful event, and maybe even the cause of the stressful event, is highly possible to occur. This gives the individual insight of the incident and may serve as a handle for future situations of threat or stress. In other words, the coping style used by the individual might influence the possibility of anticipating in a right way to tackle a potentially harmful situation (Winstanley & Whittington, 2002).

Experiencing victimization can be an extreme stressful life event. Therefore, a lot of research on coping strategies has been done among victims and especially (female) victims of (domestic) violence, abuse, and assault (Follingstad, Neckerman, & Vormbrock, 1988; Proulx et al., 1995; Scarpa, Wilson, Wells, Patriquin, & Tanaka, 2009; Ullman, Townsend, Filipas, & Starzynski, 2007; Valentiner et al., 1996). In past research, little evidence is found to suggest that adapting certain coping styles can result in experiencing violence and aggression. Winstanley and Whittington (2002) found that health care staff who used behavioral coping strategies were more likely to be a victim of threatening behavior by patients than individuals who use cognitive coping strategies. Therefore, we hypothesize that people who develop maladapted coping strategies after experiencing victimization can be more vulnerable for future situations of violence because they did not learn how to deal with or to anticipate in a situation of threat and stress,

such as workplace aggression. A threatening situation in a penitentiary setting can likely run out of hand for someone who does not know how to properly cope with the situation. In other words, coping styles might be related to getting involved in aggressive encounters; individuals who use behavioral/emotion-focused coping styles are more likely to be involved in an aggressive situation than individuals who use cognitive/problem-focused coping styles (Winstanley & Whittington, 2002).

#### TYPE-D PERSONALITY

The relationship between type-D personality and victimization is well studied in the victimological literature (Kunst, 2011; Kunst, Bogaerts, & Winkel, 2011). Type-D personality is a concept that is being used in (medical) psychology research (for example, see Denollet, 2000; Denollet, Vaes, & Brutsaert, 2000) and is characterized by negative affectivity (NA) and social inhibition (SI). Individuals with high-NA and high levels of SI fit the type-D personality, in which “D” stands for distressed (Denollet, 2005; Kunst et al., 2011). NI accounts for generally experiencing more negative emotions and more feelings of anxiety and irritability (Denollet, 2005). High-NA people tend to worry a lot and feel gloomy. Individuals high in SI have the tendency to inhibit the expression of emotions in social interactions because of their fear for disapproval by others (Denollet, 2000, 2005). SI accounts for reticence and a lack of self-assurance. To sum, individuals with type-D personality tend to experience negative emotions and at the same time tend to inhibit the expression of these negative emotions (Denollet et al., 2000).

According to Horowitz, Bonanno, and Holen (1993), all persons have their own schemes of the self and the world around them (self-schemas). People organize the world and interpret the stimuli from outside through these existing schemes and give meaning to this information. People with NA see themselves (Denollet, 2000) and the world around them in a less positive way than others do (Douglas & Martinko, 2001). High-NA persons are more sensitive and react more often to negative events (Douglas & Martinko, 2001). Having NA includes experiencing higher levels of distressing moments such as anxiety, hostility, anger, and fear (Watson & Clark, 1984). NA also includes affective states such as anger, scorn, revulsion, guilt, self-dissatisfaction, and a sense of rejection and sadness (Watson & Clark, 1984). These characteristics can cause observers to perceive NA persons as hostile and/or distant. Because NA persons see themselves and the world as less positive, they may tend to view ambiguous situations as threatening sooner than other people. This may actually cause them to respond in a hostile manner. People who are socially inhibited have low levels of interaction with others and are not confident in these interactions. Due to these facts, encounters may not feel at ease when they are around socially inhibited subjects. They may feel avoided or even unwanted. This, obviously, is not

profitable for a situation of social interaction and may cause frustration and aggression in the encounter.

Having said this, we can deduct that type-D personality can act as a vulnerability factor for workplace aggression in penitentiary workers through NA and SI. By viewing the world and themselves in a negative way and having the tendency to interpret neutral or ambiguous situations/stimuli in a negative way, high-NA individuals working in a prison setting may be more likely to be confronted with an aggressive or violent situation with a detainee because of this negative interpretation of an (ambiguous) situation. On the one hand, this negative interpretation can cause the NA subject to react in a distant or hostile manner. This can result in a misplaced signal toward the detainee and can cause an aggressive reaction (Grandy, Dickter, & Sin, 2004) from the detainee. For example, the detainee may make an ambiguous comment, and the high-NA penitentiary worker may respond more defensively, evoking hostility or suspicion in the detainee. On the other hand, NA people may have a higher sense of insecurity and anxiety because of this negative interpretation of the situation (world around them) and may present themselves as targets to mistreatment/(verbal) aggression (Aquino & Bradfield, 2000).

SI can also work as a vulnerability factor for workplace aggression in a prison setting because of its standoffish character. A penitentiary worker with a socially inhibited character due to type-D personality may not be able to build a relation of reciprocal confidence or create a positive/safe bond with a detainee (Kunst, Schweizer, Bogaerts, & van der Knaap, 2007), opposed to a socially intelligent colleague. In a tense situation or a situation in which the detainee had to be put in place, a mal-developed relationship lacking reciprocal confidence and trust can sooner cause the detainee to get in an aggressive mode than in a well-established relationship between the two. There are no credits.

Taken all together, there are reasonable arguments pleading for a possible relationship between type-D personality (NA and SI) and workplace aggression in a prison setting.

#### NEGATIVE CHILDHOOD EXPERIENCES

Five main distinctions can be made according to negative childhood experiences: child sexual abuse (CSA), child physical abuse (CPA), child emotional abuse, child physical neglect, and child emotional neglect (Bernstein et al., 1994). In the literature of childhood abuse and victimization in adult life, revictimization is defined as "Sexual or physical abuse of an adult who has experienced childhood sexual or physical abuse" (Little, 1999, p. 23). Several studies on negative childhood experiences (for example, childhood abuse and neglect) indicated that victimization in childhood can contribute to a higher chance of being victimized in adult life. In other words, childhood

victimization is empirically found to be positively related to (re)victimization. Earlier research found that female victims of CSA were more likely to become revictimized (sexually assaulted or raped) in adulthood than non-abused control groups (Beitchman et al., 1992; Noll, Horowitz, Bonanno, Trickett, & Putnam, 2003; Schaaf & McCanne, 1998). Schaaf and McCanne further detailed this finding, concluding that victims of both CSA and CPA are more likely to be revictimized in adulthood than victims of CSA, CPA, and non-abused. They also found that victims of CPA were more likely to be revictimized in adulthood than victims of CSA. Anderson (2002) states that a history of child abuse increases the risk of workplace victimization in nurses. Little (1999) found that a history of childhood abuse increased the risk for experiencing workplace physical and sexual violence.

One frequently used theoretical explanation for revictimization in adulthood for victims of childhood abuse suggests that childhood victimization may result in the development of maladapted beliefs, behaviors, and attitudes (Anderson, 2002; Little, 1999). Another theoretical explanation used in previous studies describes the failure of learning assertive behavior, self-protection, and anger management skills, which can contribute to the risk of adulthood victimization (Wheeler & Berlinger, 1988). Prino and Peyrot (1994) found that child victims of abuse display more aggressive and hostile behavior, and child victims of neglect display more withdrawn and submissive behavior. These behavioral types can be continued into adulthood, which may be a vulnerability factor for adult victimization.

As noted earlier, the relationship between childhood victimization and (re)victimization later in life has been studied in earlier research in the past decades. Several researchers gave (possible) explanations for this relationship. These mechanisms are also applicable to the situation of penitentiary workers in prison settings. First, maladapted beliefs about whom to trust or about a situation's being safe or not safe may be a risk factor for victimization in the prison setting. The same accounts for maladapted behavior and attitudes toward persons or situations. Not adequately assessing a situation and reacting in an inadequate way may cause a tense and threatening situation to run out of hand, with experiencing violence and aggression as an outcome. Second, not being able to behave assertively and self-protective may also place a penitentiary worker at higher risk of experiencing violence and aggression. If the penitentiary worker is not able to draw a line that says *up to here and no further*, he or she is not in control of the situation and not acting assertive, which allows the encounter (detainee) to take the next (violent) step. Third, acting more aggressively and with hostility as a penitentiary worker in certain situations due to an experience of child abuse may evoke aggressive reactions from a detainee, causing violent and harmful situations. Finally, behaving in a withdrawn or submissive way can place the penitentiary worker in a position vulnerable to violence and aggression when facing a tense or threatening situation with a detainee. In this case,



the penitentiary worker does not stand up for him- or herself and lets the detainee take control of the situation.

#### ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) incorporated the concept of ADHD, first starting with the designation “*Attention Deficit Disorder (with or without hyperactivity)*” in the DSM III (DSM III, APA, 1980). The revised version of the DSM III (DSM III-R, APA, 1987) replaced ADD by *ADHD*, and the ADD without hyperactivity was redefined as *Undifferentiated ADD*. The latest version of the DSM (DSM IV-TR, APA, 2000) was published in 2000<sup>1</sup> and classifies three types of ADHD: ADHD combined type (including symptoms of inattention and hyperactivity/impulsivity); ADHD predominantly inattentive type (if only inattention criteria are met); and ADHD predominantly hyperactive/impulsive type (if only hyperactive and impulsive criteria are met).

ADHD is a neurobehavioral developmental disorder that thus consists of two underlying concepts: inattention and hyperactivity/impulsivity. Attention is essential in daily and social functioning. Sustained attention, on the one hand, is required to follow the content of a task or conversation to adequately respond. Persons suffering from ADHD have, for example, difficulties maintaining their focus in a conversation for an extended period of time (Andrade, Brodeur, Waschbusch, Stewart, & Mcgee, 2009). Not being able to focus on the conversation may result in a lack of, or inappropriate social information, verbally or nonverbally given by the encounter or the context of the social encounter that is necessary for processing the conversation. Selective attention, on the other hand, refers to the ability to filter out all the unimportant stimuli in the environment and helps to concentrate on stimuli that are salient to the task and help to focus on the task (for example, a conversation). A lack of selective attention may cause thoughts to wander off and focus on unimportant stimuli.

A lack of concentration because of hyperactive/impulsive behavior makes a person suffering from ADHD less capable to prepare motor responses in anticipation of events and insensitive to feedback about errors made in those responses. For example, if a child with ADHD is performing a computer task where he or she has to press a key when a certain visual is shown and he or she keeps on pressing the wrong key, he or she will not slow down or react in another way to solve the error (Barkley, 1998). Self-control is an important factor to be able to perform tasks. The same will happen in a social encounter in adult life. The impulsive individual will use automatic responses to a certain situation and will not be able to switch

<sup>1</sup> A renewed version of the DSM, DSM V, is expected to be released in May 2012).



off these responses to take a moment and think about a proper/adequate reaction.

ADHD is commonly known as a childhood disorder and, for a long time, was seen as a disorder that would remise during adulthood. In the 1990s, several studies were conducted on the implications of ADHD in adult life. These studies proved that ADHD can persist into adulthood and that the disorder does have negative consequences in daily adult life. Several prospective studies that followed children with ADHD into adulthood found a persistence of ADHD symptoms into adulthood (Barkley, 1998; Duncan, 1997; Kessler et al., 2005; Shekim, Asarnow, Hess, Zaucha, & Wheeler, 1990). This suggests that 1% to 3% (Roy-Byrne et al., 1997; Shekim et al., 1990) or even 7% (Duncan, 1997) of the adult population suffers from negative consequences of (symptoms of) ADHD. A small proportion of these adults with ADHD actually has clinically significant ADHD (Roy-Byrne et al., 1997). Because of these empirical findings, the notion of children completely growing out of ADHD is set aside. A partial remission can take place during adolescence, but the individual will never completely recover from ADHD. Adults may not continue to fit the clinical diagnoses of ADHD any longer but may still suffer from one or more symptoms (with some symptoms to be more persistent than others) that impair them in their daily functioning and distinguishes them from people who did not suffer from childhood ADHD in, for example, differences in social skills (Young & Gudjonsson, 2008).

As previously mentioned, ADHD can be divided into two symptom clusters: a diminished attention span and hyperactive/impulsive behavior. These two clusters work independently as a vulnerability factor for workplace violence in penitentiary workers. For a penitentiary worker, diminished sustained attention (not being able to stay focused on a task) may evoke aggressive and even violent behavior in a detainee, because to the detainee it may look as if the penitentiary worker does not pay attention to or has no interest in what he has to say. This can cause irritation and frustration that can be expressed through aggressive/violent behavior by the detainee.

Diminished selective attention impairs penitentiary workers' ability to stay alert to all important signs or stimuli that give the workers information of the situation and for acting in an adequate way. For example, in a situation where the penitentiary worker has to interfere in a tense situation between detainees, it is very important to stay focused and to receive all the information the detainees are giving. If an important sign of possible escalation of the situation is overlooked by the penitentiary worker, he or she cannot take proper action with which to prevent escalation of the situation and getting hurt.

Hyperactive/impulsive behavior can also elicit an aggressive situation. A guard often has to pause for a moment to think about the right way to react, certainly when the heat is already on. One cannot always react in a way one would do automatically. Impulsive behavior has to step aside,

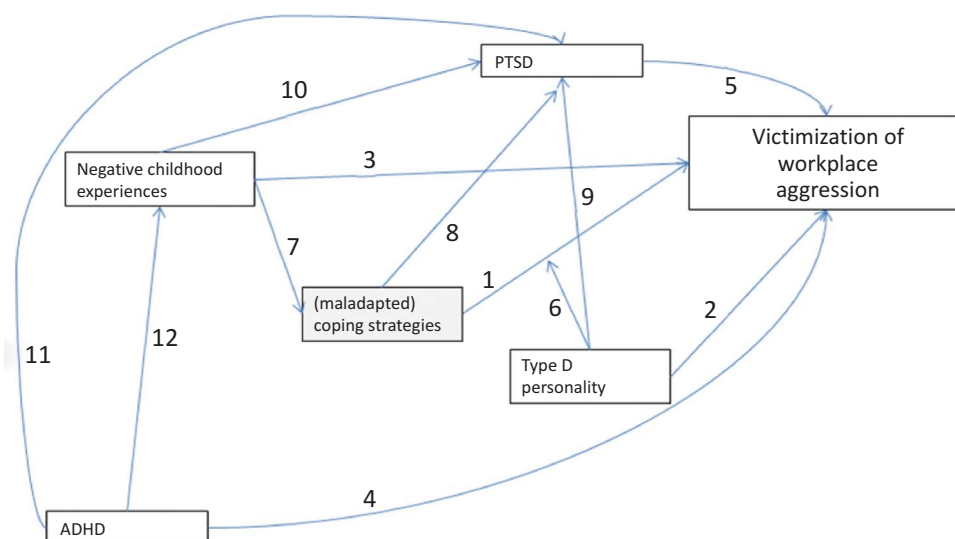
and professionalism has to take over. If ADHD prevents guards from shutting down their automatic response, they cannot give a well-considered and adequate reaction. The automatic, impulsive response may be perceived as aggressive or hostile and trigger an aggressive reaction in the encounter.

#### POSTTRAUMATIC STRESS DISORDER

Before the role of trauma caused by external stimuli in distress was recognized (DSM-III, APA, 1980), posttraumatic symptoms were viewed as being due to individual pathology. In 1980, the construct of PTSD was incorporated into the *Diagnostic and Statistical Manual of Mental Disorders* (DSM IV, APA, 1994), based on a symptom picture that was common to rape trauma survivors, battered women, Vietnam veterans, and abused children (Dietrich, 2000).

PTSD is an anxiety disorder (Renck, 2006) that can be developed after experiencing, witnessing, or being confronted with an event or events that involved actual or threatened death or serious injury, a threat to the physical integrity of self or others (DSM IV, APA, 1994). PTSD can be expressed by characteristics of three symptom clusters: (a) reliving the traumatic event (for example, in dreams-nightmares and flashbacks); (b) avoiding situations or people that remind of the traumatic event (for example, avoidance of locations, activities, or people that remind the victim of the traumatic event; avoidance of thoughts, memories, feelings, and conversations related to the event); and (c) a constant high state of arousal. People who develop PTSD experienced, witnessed, or have been confronted with an extremely stressful situation or a traumatic event that involved actual or threatening death or serious injury (Blanchard et al., 1996; Kunst et al., 2009). The reactions to (one of) these situations involves intense fear, helplessness, or horror (DSM IV, APA, 1994). People who suffer from PTSD report feelings of depression and anxiety and are sometimes unable to remember important details of the event.

Especially the avoidance aspect of PTSD can work as a mechanism between PTSD and (re)victimization. The avoidance cluster of PTSD includes trying to avoid thoughts, feelings, or conversations related to the traumatic event. Also having trouble remembering important aspects of the traumatic event is an effect of avoidance (DSM IV, APA, 1994). When individuals avoid situations or details of the victimization, they will avoid (intentionally or unintentionally) unimportant and important information that can be of relevance in a future situation of potential danger/revictimization. This may cause an inadequate judgment of the future situation that might be threatening to the individual. Avoiding the important signals for adequately assessing the situation can prevent the individual from taking the right action so that revictimization can occur. In a prison situation, where a penitentiary worker who suffers from symptoms of avoidance due to an earlier situation of severe



**FIGURE 1** Direct and Indirect Paths for Victim Vulnerability Factors for Workplace Aggression among Penitentiary Workers (color figure available online).

threat is involved in a threatening situation with a detainee, an inadequate assessment of the situation may lead to an increased risk of being verbally or physically victimized. Continuing the discussion or walking away from the encounter at a bad moment can have a negative outcome.

The paths for the five aforementioned vulnerability factors that may lead to victimization of workplace aggression among penitentiary workers are visualized Figure 1 (numbers 1–5).

## THE CONSTRUCTION OF A HYPOTHETICAL MODEL OF WORKPLACE AGGRESSION AMONG PENITENTIARY WORKERS

In the following section we explore the interactions of the five vulnerability factors that may lead toward victimization of workplace aggression among penitentiary workers. These interactions and intervening effects are discussed according to the paths that were visualized in Figure 1, starting with path number 6 (the first five paths are already discussed in the preceding section).

### Path 6

In earlier studies, social inhibition and negative affectivity are indicated as non-productive/maladapted coping strategies in dealing with stressful situations (for an overview, see Kunst et al., 2011). In this sense, we assume

a correlation between coping strategies and type-D personality. As mentioned before, after experiencing a negative situation of, for example, stress or violence, a socially inhibited person is not able to express feelings and not able to discuss feelings and experience with others because of fear of disapproval by others. This way of internalizing feelings and emotions can be seen as a form of emotional coping and can be seen as the opposite of seeking support (a problem-focused coping strategy). Also, people with high NA can more easily develop maladapted coping strategies than others. As mentioned earlier, people high in NA see themselves more negatively than others see themselves. This may cause them to blame themselves more often in a situation of violence, which is an emotional way of coping. Concluding with the deduction that persons high in SI and high in NA more often use emotion-focused coping strategies, the relationship between type-D personality and maladapted coping strategies can be established. It might even be that these two factors interact in their association with workplace aggression. The vulnerability for workplace aggression by type-D personality can be strengthened by maladapted coping strategies.

#### Path 7

Because the assumption that coping strategies that aim at reducing distress after a stressful situation are developed after the stressful situation, an association between child maltreatment and coping strategies can be expected. Messman and Long (1996) state in their review on CSA and its relationship to revictimization in adult women that a higher rate of revictimization in adulthood in persons who suffered from childhood abuse can be found because they have learned maladaptive ways of thinking, coping, and relating to others. Dissociation, a coping mechanism that can be scaled under the heading of escapism and is used by victims of severe trauma such as victims of child abuse, is seen as a risk factor for revictimization. At first it seems to be a good defense mechanism for dealing with distress after a traumatic experience such as child abuse but, in fact, it may lead to a greater vulnerability for revictimization (Zlotnick et al., 1994), because the use of dissociation prevents a victim from adequately assessing a situation of danger so self-protective measures cannot be taken. Using dissociation as a default defense mechanism disables the individual to learn from the traumatic experience so that a future situation of danger cannot be assessed properly either. In this relation, coping strategies work as a mediator in the association between child maltreatment and workplace victimization.

#### Path 8

The same construct accounts for the association between coping strategies, PTSD, and workplace victimization. Literature on coping strategies

and emotional distress (Aldwin & Revenson, 1987; Brauwn-Lewensohn et al., 2009; Proulx et al., 1995; Ullman et al., 2007) shows that non-productive/maladapted coping strategies (mostly emotion-focused coping strategies) are associated with higher levels of distress. According to Ullman et al. (2007), it is believed that avoidance (an emotional coping strategy) may be associated with greater long-term psychological trauma. PTSD is an extreme form of psychological distress and can, therefore, act as a mediator in the relationship between coping strategies and workplace victimization.

### Path 9

As briefly mentioned earlier in this article, there appears to be a positive relationship between type-D personality and PTSD (Cheung-Chung, Berger, & Rudd, 2007; Kunst, 2011; Kunst et al., 2011). Our preexisting self-schemas determine how we interpret a traumatic event. Individuals with type-D personality generally report high levels of emotional distress (Denollet, 2000). Cheung-Chung et al. (2007) found that patients with full PTSD were significantly more neurotic than those with no PTSD or partial PTSD (type-D personality matches the concept of neuroticism in the NEO-Five factor Inventory). In his research on PTSD, Kunst (2011, p. 5) found that “Self-destructive and high affective personality styles were strongly associated with increased PTSD symptom severity.” Both self-destructive and high affective personality styles score high on type-D personality, which may indicate that individuals with type-D personality are more likely to develop PTSD symptoms. In our conceptual model, type-D personality should be admitted as an intervening variable in the association between workplace aggression and PTSD.

### Path 10

We already mentioned the relationship between child abuse/victimization and maladapted coping strategies. A second intervening effect can be suggested, that between negative childhood experiences and PTSD. In other words, PTSD acts as a mediator in the relationship between negative childhood experiences/child maltreatment and revictimization. Individuals who experienced child abuse or neglect are more often diagnosed with or dispose symptoms of (complex) PTSD (Choi, Klein, Shin, & Lee, 2009; Pederson et al., 2004; Weinstein, Staffebach, & Biaggio, 2000) than individuals with no history of abuse or neglect (Wind & Silvern, 1992).

There is empirical evidence that force and the use of violence in child abuse are associated with a more severe outcome (Beitchman et al., 1992). In a study by Browne and Finckelhor (1986, in Weinstein et al., 2000), sexual

abuse was found to be the most damaging (had the most negative reaction) when there was a use of force, genital contact, and situations in which the perpetrator was a father-figure. CSA causes considerable hostility toward others and fearfulness of aggressive behavior. The use of force was the most dominant factor to cause damage in the study by Browne and Finkelhor. When more intimate contact is involved during the abuse, the experience is more traumatic. Sexual abuse involving penetration appears to be the most damaging in terms of long-lasting effects on the child (Weinstein et al., 2000).

Schaaf and McCanne (1998) stress the importance of distinguishing CSA and CPA when speaking of childhood abuse. The results of their study imply that combined sexual and physical abuse in childhood is a significant factor for adult victimization, PTSD and trauma symptoms. In testing the theoretical model outlined in this article, a relation between negative childhood experiences and PTSD is to be expected.

### Path 11

A relationship between ADHD and PTSD can be hypothesized. As mentioned before, individuals suffering from ADHD are at higher risk of experiencing a violent or aggressive situation due to inattentiveness or hyperactive/impulsive behavior. These two characteristics place them in risk for experiencing traumatic events more than their non ADHD counterparts. Experiencing these events can cause a person to develop PTSD. Therefore, Adler, Kunz, Chua, Rotrosen, and Reskick (2004) suggest that the relation between ADHD and PTSD is not a direct but an indirect relation through the higher possibility of persons with ADHD to put themselves at danger for trauma than individuals without ADHD. Adler et al. (2004) concluded that patients with PTSD were significantly more likely to have ADHD. Gurvits et al. (2009) also found a relationship between PTSD and reported childhood ADHD. Individuals with a history of childhood ADHD reported higher PTSD levels than individuals without childhood ADHD. Famularo, Fenton, Knischerff and Augustyn. (1996) found that ADHD was more common among PTSD-diagnosed children in comparison to the control group. This relationship was also found in adults (Adler et al., 2004; Gurvits et al., 2009). Adler et al (2004) conducted research on 22 male veterans with panic disorder and found that persistent symptoms of ADHD were more present in the PTSD group than in the panic disorder group. They suggest that the relationship between ADHD and PTSD is indirect through the possibility that individuals with ADHD put themselves at greater risk for trauma than individuals without ADHD. Adler et al, (2004). suggests that ADHD is a vulnerability factor for developing PTSD after exposure to trauma. According to the previous reasoning, in the relationship between victimization (trauma) and PTSD, ADHD can act as a moderator.



## Path 12

A relation that has been suggested in the literature on ADHD is that of ADHD and child maltreatment (McLeer, Callaghan, Henry, & Wallen, 1994; Merry & Andrews, 1994; Weinstein et al., 2000). In this association, the same mechanism can be applied as the mechanism between ADHD and workplace victimization. Children with ADHD are more hyperactive and impulsive than their non-ADHD counterparts. The problem of not being able to control motor responses, for example, in situations where proper and obedient behavior is preferred, can cause frustration and feeling of irritation in parents or others. An ADHD child is not able to adjust his or her behavior when parents try to correct, because of their insensitivity to feedback. This can increase feelings of frustration and, unfortunately, lead to a violent act of impotence. Because a child with ADHD has problems with controlling motor responses all the time, this can lead to structural abuse.

## FUTURE DIRECTIONS AND PRACTICAL IMPLICATIONS

In this article, we constructed a theoretical framework of vulnerability factors for experiencing workplace violence, based on previous research and previous empirical results of associations between personality characteristics that may be an indicator of experiencing workplace violence. We combined theories and facts of personality characteristics with precipitation theories of aggression to describe and test the relationship between (victim) characteristics and workplace violence of detainees toward penitentiary workers. The focus in this study, namely examining the possible link between risk/vulnerability factors and an increased risk of workplace aggression, is mainly due to a lack of empirical research in this field. First, criminological and victimological studies on workplace aggression make particular use of criminological concepts, such as lifestyle, social control, the nature of work, and organizational elements in describing and explaining violence in the workplace. Individual factors and more broadly psychological factors are often disregarded in empirical research on workplace aggression. This study attempts to close the knowledge gap by taking on psychological characteristics in an explanatory and hypothetical model. Second, there are only a few empirical studies especially relating to prison staff. The construction of the hypothetical model is based on literature and will be tested. Testing a hypothetical model is primarily generic because only latent variables are taken into account. This is a regular technique working with structural equation models. Therefore, and in a second phase, we will test specific hypotheses (pathways) on a manifest level so we can differentiate psychological profiles of prison workers. With empirical results on the association between personality characteristics and workplace



violence in prison settings, we are able to confirm or reject the hypothesized paths in our theoretical framework and subsequently draw conclusions on the impact or influence of maladapted coping strategies, type-D personality, negative childhood experiences, ADHD, and PTSD on experiencing workplace violence.

The results of empirical tests of our hypothetical model will be of great value for practical use in different ways. First, research has pointed out that some individuals with serious traumatic experiences in life opt for a professional career that is not without dangers. Underlying arguments mentioned in past literature are, for example, identification with the aggressor and unconscious retrieval of high-risk situation. Additional but not unimportant, a number of specific professions require specific clothing, uniforms, and attributes that can derive status and power and distinguish professionals from others. This can lead to a heightened sense of safety. The unequal relationship between staff and prisoners and the control and power of a prison guard over a detainee can also be an argument for people to choose these professions. We can also assume similar mechanisms in other professions such as police and security people (Bogaerts, Daalder, Van Der Knaap, Kunst, & Buschman, 2008; Bogaerts, Hartogh et al., 2008; Bogaerts, Kunst, & Winkel, 2009; Kunst et al., 2009). Second, research findings can be important in the context of, for example, the selection processes for new staff. This research may lead to the development of screening tools for selection tests for potential professionals. These insights are necessary to select people who can act in an adequate and problem-solving way. The results of a screening can be one of the deciding factors whether to hire an individual for the job. As an example, in the current article, we hypothesized that maladapted coping strategies (merely emotion-focused coping strategies) have a positive effect on experiencing workplace aggression. It is important to know which specific coping strategies may lead to a higher chance of becoming a victim of workplace aggression and which specific characteristics of these coping strategies are responsible for this effect. If screening for this and other vulnerability characteristics is done before hiring new professionals, a selection of personnel with lower risk for experiencing workplace aggression can be established.

The research findings can also be used in the development of training programs to prevent workplace violence and for adequately monitoring and supervising personnel with personality characteristics that were proven to be vulnerability factors for experiencing workplace aggression. Being able to discover the mechanism between coping strategies and victimization can help us detect problematic coping strategies and effectively guide or assist individuals who use these strategies into changing or adjust their way of coping with situations or feelings. In other words: If employees possess personality characteristics that actually make them experience more aggression from clients or patients, a custom-made monitoring and action plan

can be developed to properly supervise and assist the employees during their career. It is also important to have insight into personal factors, not only in the context of prevention but in the context of decisions on which interventions could be taken to stop re-victimization processes by existing staff members. These insights may lead to the provision of appropriate training programs. Individuals at risk can thus be better coached by a supervisor. Important, however, is that the organization must be sufficiently aware of this problem and also provide support and efforts of those individuals to protect.

To not reject people who apply for a job in the health care sector, the security sector, the police department, or a penitentiary institution only based on the fact that they have personality characteristics that are proven to be vulnerability factors for experiencing workplace violence, further elaboration on the different components of the personality characteristics discussed in this article and their impact on experienced aggression and violence are highly necessary.

## CONCLUSIONS

In this study, we constructed a theory-driven conceptual model in which personality characteristics are expected to be vulnerability factors for workplace aggression among prison workers. We first suggested that the presence of maladapted coping strategies, type-D personality, negative childhood experiences, ADHD, and PTSD in a penitentiary worker brings along a higher chance of risk for workplace aggression. Second we proclaim some moderating effects between the five personality characteristics in their relation to workplace aggression. Personality factors alone will explain only a part of the victimization process. Therefore, in our study, it is very important that we include a qualitative research focus on processes of interactions between professionals and inmates and managers and also pay attention to organizational aspects (e.g., organizational justice). Behavioral outcomes are a combination of personal mechanisms and contextual factors (Leeuw, Knaap, & Bogaerts, 2007). This interplay is also examined in this study based on in-depth interviews that will be carried out with prison workers, in addition to the quantitative research we will conduct. By interviewing prison workers that exhibit personality characteristics that are determined as vulnerability factors for experiencing workplace violence, we can make a clear description of how these personality characteristics are expressed and revealed during daily life and whether or how these characteristics may collide with the specific context of a prison worker with its rules, autonomy, responsibility, and so on. Also, the possibility of going deeper into the intrinsic mechanisms of behavior and experiencing workplace violence will give more insights into how the assumed associations between personality characteristics and workplace aggression work.

Finally, we conclude with the notion that we do not want to be fixated only on the negative impact of the personality characteristics mentioned in this article on experiencing workplace violence. In our research, we must pay attention also to the characteristics that may function as a protective factor for workplace aggression, such as well-adapted coping strategies.

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